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OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

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REPORT FOR THE MONTH OF FEBRUARY, 1942

HAVRE:

The first twelve days had above zero temperature, ranging from 46° to 3°, whereas the remainder of the month had recordings from 35° above to minus 19°. The mean temperature for the month was 12.2°, which is 5.2° below the monthly average. The snowfall and precipitation were better than double the normal.

Winter wheat and fall-sown grasses had a good snow cover before the cold spell. Winter wheat on fallow had an average cover of 5 inches, grasses sown in stubble had an 8-inch cover, and there is an average of 5 inches of snow on all fallow, 6 inches on the prairie, and 11 inches on weedy land.

Due to a fairly heavy snow cover as well as below normal temperatures, this month has been somewhat hard on livestock, necessitating heavier feeding on the range. The yearlings on individual feeding trials did fairly well, but the calves apparently were affected more by the cold weather.

The dipping vat that was installed at the station last fall seems to be paying dividends. Infestation has been reduced to a large degree.

Another homemade centrifugal pump was made entirely of old metal and will be used to pump from the beaver swamps on to the alfalfa seed field.

Maximum temperature, 46°; minimum, -19°; Precipitation, 0.79 inch. Snowfall, 12.2 inches.

JUDITH BASIN:

February was a cold, windy month. The mean temperature was 3° below the station average mean (22°). Minimas were below zero on seven days. Precipitation, in the form of snow, was recorded on ten days and totaled 0.60 inch. This was 0.07 inch above the station average for February (0.53) and brings the two-month total of 1942 to 1.06 inches. The average daily wind velocity of 7.1 miles per hour for this February is the highest on record for the four years during which the wind velocity has been recorded at this station in the winter months. On six days the daily average was 10.0 miles per hour or better, with a high of 17.4 miles recorded the morning of the 17th. On a few days there was some soil movement and some injury to winter sown grains throughout the Basin is probable.

The steers in the Winter Feeding Trials were weighed on the 4th, the end of the second period, and slightly lower average daily gains were recorded, although the weather was more favorable than the preceding period. Average daily gains per steer were; in Lot "A", 0.79 pound; in Lot "B", 1.19 pounds; in Lot "C", 1.11 pounds; and in Lot "D", 1.11 pounds. The next weighing date will be March 4 and the test is expected to run until April 4 or a total of 120 days.

Maximum temperature, 46°; minimum, -13°; precipitation, .60 inch.

HUNTLEY:

February was characterized by below-average precipitation, wind velocity, and mean temperature. Snow fell on 12 days during the month and although the moisture content was relatively low, melting was retarded by rather low temperatures, leaving full or partial snow cover throughout the period. At the close of the month bare soil is showing in exposed spots, but in shaded places and where drifts are present the snow is from a few inches to 2 feet in depth.

Below zero temperatures were recorded on 8 days in February, all within the last half of the period. The last 6 days of the month had minima below zero. Wind velocity was much above average from the 16th to the 21st, and it was during that interval that snow drifting was heaviest.

Maximum temperature, 44°; minimum, -17°; Precipitation, 0.38 inch.

SHERIDAN:

The first fifteen days of the month were mild, but the last half was considerably colder, with the month as a whole about 2° colder than average. There was no snow until the 12th, but there was about 3 inches on the ground through the remainder of the month. No field work was possible at any time.

Lambing was started during the coldest weather, and while there was some loss on that account, losses were not heavy.

Maximum temperature, 49° on the 4th; minimum, -15° on the 18th; precipitation, 0.43 inch.

DICKINSON:

February seemed to be a very mild month, but it had a mean temperature of 14.3°, a little below that of February 1941, and only 1° above normal. In the last 20 years half of the Februarys have had a mean temperature above that of this year, with the warmest in 1931 when the mean temperature was 28°.

The ground was bare of snow the first week, then had about an inch cover until the 22nd, when a heavy snow increased the cover to 6 inches. Total snowfall for the month was 11 inches. This drifted very little as the weather remained calm.

Maximum temperature, 57°; minimum, -21°; precipitation, 0.77 inch.

MANDAN:

The first half of the month was mild but the last half was cold and windy, with considerable cloudiness prevailing. There were only three clear days during the month.

There were 7 days with minimum temperatures below zero, with the coldest temperature of -22° on the 17th. All days of below zero weather occurred the latter half of the month. There were 6 days with maximum temperature above 32°, all but one during the first half of the month. The maximum for the month was 52° on the 4th.

The average wind velocity for the month was 4.0 miles per hour, with a low reading of 0.9 mile per hour on the 27th, and a high of 10.8 miles per hour on the 22nd.

Total snowfall for the month was 5.1 inches, with precipitation of 0.47 inch. This is slightly higher than in 1941, when the snowfall was 3.0 inches and the precipitation 0.22 inch.

The month of February 1942 was almost directly comparable to February 1941 insofar as temperature was concerned, in that the first half of both months was mild and the last half cold with sub-zero temperatures prevailing.

BELLE FOURCHE:

The first two weeks of February were mild and pleasant, but the last half of the month was cold. Subzero temperatures were recorded on 8 days, February 16 to 18, and 23 to 27, inclusive. The mean temperature for the month was 20.5°, which is about normal. High winds accompanied the cold wave on February 16, 17, and 18 and caused some soil blowing, but there was only one other day during the month in which the average wind velocity exceeded 10 miles per hour. The precipitation lacked 0.08 inch of equaling the average for February, and came in too small amounts to be of much benefit.

Maximum temperature, 56°; minimum, -14°; precipitation, 0.26 inch.

ARCHER:

The weather during February was rather cold and threatening. Precipitation was recorded on twelve days. Wind velocity was less than usual, and no soil blowing occurred.

Stored feeds are sufficient for normal conditions. Considerable feeding was necessary during the month, but animals generally are in a thrifty condition. At present a considerable portion of the prairies is without snow, thus permitting the grazing of animals.

Winter cereals appear to be holding their own.

Maximum temperature, 49°; minimum, -12°; precipitation, 0.39 inch.

NORTH PLATTE:

The mild weather during the last half of January continued through the first week in February. On the 8th, a heavy snow fell throughout the day. There was no wind with the snow and no drifting. Nearly a foot of snow fell during the day. There was a light snowfall on several days during the rest of the month and there was no drifting. Very seldom does this area have so much snow that is not accompanied by wind to cause it to drift. The Weather Bureau reported 15.3 inches of snow for the month. Minimum temperatures below zero were recorded for five days, and the maximum temperatures the last three weeks of the month were never much above freezing. There is still a good snow cover, and even with favorable weather, little field work can be done before the middle of March.

Most of the station staff attended Organized Agriculture at Lincoln the first week of February.

The total precipitation of 1.32 inches for February has only been exceeded since 1875 in the years 1883, 1909, and 1919. The total precipitation recorded for the first two months of the year is 0.74 inch above normal.

Maximum temperature, 57°; minimum, -9°.

AKRON:

Deep winter weather prevailed during February with more than average precipitation, all as snow. County roads were blocked much of the time. Continuous snow on the ground since late in December has made it impossible to gather much scrap iron in northeastern Colorado. It has been precarious to schedule any sales with hopes that those who have expressed a desire to attend will be able to do so. There is no evidence at the end of the month that the snow will soon melt. The coldest part has been since the 18th when a minimum temperature of -20° was recorded.

The winter has been very hard on fattening cattle. Those on feed at this station have averaged about 2 pounds per head daily gain.

Ronald Tom and D. W. Robertson visited during the month.

Maximum temperature, 46°; minimum, -20°; precipitation, 0.50 inch.

COLBY:

February was unsettled with considerable cloudy weather and frequent light fogs and mists and light snows. Precipitation was recorded on 13 days, but the total was a quarter inch above the average. The amount ranged from a trace on 5 days to 0.24 on the 13th. All but 0.02 inch was in the form of snow. The mean temperature was 5° below the station average. The minimum temperature dropped below freezing every night and below zero twice, -9°on the morning of the 18th and -1° on the morning of the 27th. The wind movement was below the average, but somewhat higher than in January. There was only one windy day, the 23rd.

It was an unfavorable month for field work. Most of the time it was too damp for corn husking or hauling fodder, which still remained to be finished on most farms. There was a light covering of snow most of the month. There was considerable freezing and thawing, but no heaving of wheat has been noticed. At the end of the month the ground was frozen about a foot deep. Winter wheat furnished some pasture most of the month. No tillage work has started. There were no bad storms and no soil blowing.

Maximum temperature, 55°; minimum, -9°; precipitation, 0.76 inch; snowfall, 11.2 inches. Precipitation, 55-year average, 0.57 inch.

HAYS:

The weather during the month was generally mild with no extreme temperatures although the mean was nearly 3° below normal. No severe storms or heavy winds occurred. There were 12 clear days, indicating considerable sunshine. Precipitation in the form of snow occurred in measurable quantities on 6 days. The snow in most instances fell quietly and lay evenly over the ground, which was covered from 0.5 to 4.0 inches deep 9 days during the month.

Except for a few days early in the month, the soil was too wet for field work. Part of the time it was frozen a few inches, but at no time more than 6 inches.

The wheat has made a moderate growth for winter, and all fields look green as viewed from the road. The wheat generally is in excellent condition.

Maximum temperature, 62°; minimum, -3°; precipitation, 1.02 inches, including 10.8 inches snow.

GARDEN CITY:

The first half of the month was in general rather mild; but the temperatures dropped the last half and the mean was 6° below average for the month. On the 17th and 18th the minimum temperatures were 11° and 5° below zero, respectively. Moisture fell on ten days, but the total was only 0.36 inch as compared with the average of 0.69 inch. This makes the fourth consecutive month that the precipitation has been below average. Wind accompanied some of the snows, and consequently some moisture was lost, especially from the smooth plots. However, the wheat is in good condition from a moisture standpoint and due to sufficient snow cover during the cold spells, no winter-killing has been observed. The wind velocity on February 5 was quite high, at one time at the airport a maximum of 59.0 miles per hour was recorded. There was considerable local soil movement and the dust also rolled in from the northwest, which awakened some of the people to the fact that the land could still blow.

A large number of the lambs in this section have been shipped to market, however, there are still some, particularly in feed lots.

Maximum temperature, 62°; minimum, -11°; precipitation, 0.36 inch.

DALHART:

Temperatures continued mild for the first week and were then lower than normal for the rest of the month. Two days gave rather severe soil movement. On the 5th soil movement was rather severe, and on the 22nd it was nearly as bad but for a shorter period of time. On three other days there was dust in the air but with a low amount of soil damage. Thistles were largely removed from the pasture on the 5th. This will help to keep down the soil accumulation.

It now appears that winter wheat and rye are failures on the station. Oats have not been seeded because of the continued low temperatures, and dry surface soil. Until the last day of the month the only precipitation for the year was 0.01 inch. A snow starting early Saturday morning and continuing until 8:30 A.M. on March 1 furnished 4.3 inches of snow and 0.39 inch of water. Since November 1, there had only been a total of 0.16 inch of moisture before this snow. The snow has remained on the level and should melt in place.

Farmers had begun to talk about the need of moisture to keep the late wheat from blowing out. It is doubtful if there is sufficient moisture to meet the subsurface moisture, which seems to be ample.

Maximum temperature for the month, 68°; minimum, -2°; mean temperature, 33°; precipitation, 0.40 inch. The mean maximum, mean minimum, and mean temperatures were each 3° below the average; coincidentally the mean maximum, mean minimum, and mean temperatures for February were identical with the corresponding January temperatures. Wind movement was slightly under normal.

BIG SPRING:

Temperatures during February were somewhat lower than normal for the month. A minimum of 13° was recorded on the 18th, which was 1° above the low point for the winter. Wind velocities have also been low, there having been no wind of soil blowing proportions up to date. Precipitation during the month was received in four light showers. In fact there has not been enough rain recorded at any one time since the first of January to little more than settle the dust. A few buds are showing on some varieties of fruit trees, but it is hoped that the recent cold spells will hold most of them back for a while at least.

Station work has consisted of listing increase fields and some winter-listed plots, hand threshing bagged sorghum seed, and threshing increase milo for the cattle feeding experiments.

Maximum temperature, 82°; minimum, 13°; precipitation, 0.30 inch.

WOODWARD:

Mild weather the first half of February was succeeded by much lower temperatures, especially during the final week, the mean of 36° being 3° below normal. Unusual extremes of temperature were not reported. Precipitation was slightly above average, occurring chiefly in the form of snow totalling 7.8 inches most of which generally melted shortly after falling. Strong winds on the 5th and especially on the 23rd caused some soil blowing, but as a whole velocities were light to moderate throughout the month.

Date of planting tests with wheat, oats, barley, and rye made on the 1st have not yet emerged, but similar plantings of the previous month came up on the 8th following a week of relatively warm weather. A block of oats for uniform cropping was also sown in the Cereal project. Some cultivation to control wind erosion was necessary in row-crop stubble and fallow, winter wheat for the most part still having enough cover for protection. Road culverts in field B washed by last autumn rains were repaired. Channel terraces in the S.C.S. field were shaped and smoothed with a grader. Increase sorghum seed for spring distribution was fanned and treated. Other work included repairing farm machinery and overhauling tractors and trucks.

Grape vineyards have been pruned and the dry-land and irrigated garden areas plowed. Vegetable seed supplies have been obtained and sorted. Due to the Victory Garden campaign an unusual demand for practical information about gardening has developed. The service road between residences #2 and #3 was relocated on the contour through the acclimatization testing block thereby breaking the straight line sweep from the south which in the past had

caused a maintenance problem because of wind erosion. Root cuttings of hybrid Ulmus pumila for stock to be furnished Forest Pathology in connection with Dutch Elm disease investigations have been started in the greenhouse. Some smooth honey locust seed was gathered for studies relative to vitamin content. Digging, sorting, packing, and shipping plant materials to farmer cooperators is progressing rapidly.

Preparation of grass nursery selections for spring transplanting is continuing under greenhouse conditions. The S.C.S. Nursery Division is processing, cleaning, and distributing seed to conservation districts and L. U. projects. Steers on the 20 native grass pastures at the Range Unit gained an average of 0.21 pound per head per day during February. The average daily gain since the start of trials early in December has been 0.47 pound per head.

F. F. A. vocational agriculture crops judging teams from high schools in this district held their annual contest here on the 14th, material for judging and identification being supplied by the station.

Maximum temperature, 69°; minimum, 2°; precipitation, 0.82 inch; snowfall, 7.6 inches; reservoir, 18.8 feet, maintained 0.5 foot below full stage.

LAWTON:

February weather was rather cold and disagreeable most of the time. Growth of tree buds and small grains was held well in check throughout the month. Minimum temperatures of 11° to 15° were recorded on the 17th to the 19th. Freeze injury from these temperatures to oats seeded January 25 was confined to leaf-tip injury only. The spring-seeded variety test of oats and increase fields were seeded February 11 and 12. Rotation plots were seeded on the 6th. The seedbeds were rough, and in most instances the surface was dry. This condition was greatly improved by 0.90 inch precipitation February 13 to 18. No emergence has occurred as yet because of cold weather.

Wheat frequently manifests some growth the latter part of February, but such has not been the case this year. Moisture conditions are excellent now, and early spring growth of wheat, barley, and volunteer oats should be rapid as soon as warmer weather prevails.